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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO
09/926,622	02/20/2002	Paul Paquin	216324US0PCT	1127
22850	7590 03/24/2006		EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.			BECKER, DREW E	
1940 DUKE STREET ALEXANDRIA, VA 22314			ART UNIT	PAPER NUMBER
			1761	

DATE MAILED: 03/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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		Application No.	Applicant(s)
Office Action Summary		09/926,622	PAQUIN ET AL.
		Examiner	Art Unit
		Drew E. Becker	1761
Period fo	The MAILING DATE of this communication ap or Reply	pears on the cover sheet with the c	orrespondence address
A SHO WHIC - Exter after - If NO - Failur Any r	ORTENED STATUTORY PERIOD FOR REPLEHEVER IS LONGER, FROM THE MAILING DESIGNS of time may be available under the provisions of 37 CFR 1. SIX (6) MONTHS from the mailing date of this communication. period for reply is specified above, the maximum statutory period re to reply within the set or extended period for reply will, by statute pely received by the Office later than three months after the mailing departed term adjustment. See 37 CFR 1.704(b).	DATE OF THIS COMMUNICATION 136(a). In no event, however, may a reply be tin will apply and will expire SIX (6) MONTHS from e, cause the application to become ABANDONE	N. nely filed the mailing date of this communication. D (35 U.S.C. § 133).
Status			
2a)□	Responsive to communication(s) filed on 17 J This action is FINAL . 2b) This Since this application is in condition for alloward closed in accordance with the practice under the	s action is non-final. ance except for formal matters, pro	
Dispositi	on of Claims		
5)□ 6)⊠ 7)□ 8)□ Applicati 9)□	Claim(s) 24-43 is/are pending in the application 4a) Of the above claim(s) is/are withdray Claim(s) is/are allowed. Claim(s) 24-43 is/are rejected. Claim(s) is/are objected to. Claim(s) are subject to restriction and/or on Papers The specification is objected to by the Examination	over election requirement.	
	The drawing(s) filed on is/are: a) acc Applicant may not request that any objection to the Replacement drawing sheet(s) including the correct The oath or declaration is objected to by the E	e drawing(s) be held in abeyance. Section is required if the drawing(s) is ob	e 37 CFR 1.85(a). jected to. See 37 CFR 1.121(d).
Priority u	nder 35 U.S.C. § 119		•
a)[Acknowledgment is made of a claim for foreign All b) Some * c) None of: 1. Certified copies of the priority documen 2. Certified copies of the priority documen 3. Copies of the certified copies of the priority application from the International Burea	ts have been received. ts have been received in Applicati prity documents have been receive au (PCT Rule 17.2(a)).	ion No ed in this National Stage
2) 🔲 Notic 3) 🔲 Inform	e of References Cited (PTO-892) e of Draftsperson's Patent Drawing Review (PTO-948) nation Disclosure Statement(s) (PTO-1449 or PTO/SB/08 r No(s)/Mail Date	4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal P 6) Other:	

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DETAILED ACTION

Request for Continued Examination

1. The request filed on January17, 2006 for an RCE based on parent Application No. 09/926,622 is acceptable and an RCE has been established. An action on the RCE follows.

Claim Rejections - 35 USC § 112

- 2. The following is a quotation of the first paragraph of 35 U.S.C. 112:
 - The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
- 3. Claims 24-43 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The application does not appear to disclose treatments of "at least" three or five repetitions, "increased flow rate and pressure drop bringing about shear stresses, cavitation, turbulence, and/or impingement", a pressure of "about 100 MPa to 300 MPa", a temperature range of "25 to 60°C", microorganisms such as "fungi", and "at least 2 to 8 logs fewer" microorganisms. It is noted that Figure 1 is directed to a phosphate buffer which has been intentionally colonized by the applicant, as opposed to a food product with its naturally occurring populations. It is

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requested that applicant provide a table with side-by-side columns disclosing where each and every claim limitation is supported by the application.

- 4. The following is a quotation of the second paragraph of 35 U.S.C. 112:
 - The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
- 5. Claims 31-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
- 6. Claim 31 recites "50 MPa to 500 MPa (7,250 psi 72,500 psi). It is not clear which pressure is required since the two pressure ranges are not precisely the same.
- 7. Claim 32 recites "100 MPa to 300 MPa (14,500 psi 43,500 psi). It is not clear which pressure is required since the two pressure ranges are not precisely the same.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States
- 9. Claims 24-26, 28-32, and 34-43 are rejected under 35 U.S.C. 102(b) as being anticipated by DE 3903648A1.

DE 3903648A teaches a process for reducing bacteria by pressurizing a liquid food (page 4, lines 4-10, Figure 1, #3), passing the liquid food through a homogenizing valve

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for 20 minutes (page 6, claims 5 & 8: Figure 1, #6), collecting the liquid food (Figure 1, #1), the pressure being 50-150 MPa (page 6, claim 4), the microorganisms including viruses and bacteriophages (page 4, lines 4-8), the liquid being milk and water (page 4, lines 4-10), a lack of denaturation, milk inherently including fat, operation at ambient temperatures which was conventionally considered to be about 25°C, the liquid inherently passing through the homogenizer at least five momentary times during the course of 20 minutes of continuous circulation (page 6, claim 8), and the process inherently reducing the population of Listeria, Salmonella, and E. coli due to its identical process steps and materials as those claimed by applicant. See MPEP 2112.

Claim Rejections - 35 USC § 103

- 10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 11. Claims 24-32, and 34-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark et al [Pat. No. 5,232,726] in view of Kucherov [Pat. No. 6,019,947].

Clark et al teach a process for reducing bacteria by pressurizing a liquid food (column 2, line 42), passing the liquid food through a homogenizing valve for a full minute (Figure 1; column 3, line 38), collecting the liquid food (column 3, line 41), the pressure being 15,000 psi or greater (column 2, line 55), the microorganisms including bacteria such as

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Saccharomyces cerevisia (column 6, line 15), the liquid including citrus juice (column 6, line 21), citrus juice inherently including oils and water, a lack of denaturation, and a temperature of 25.5°C (column 3, line 46). Clark et al do not specifically recite at least 5 circulations, and a 2-8 log reduction of bacteria such as Listeria, Salmonella, and E. coli. Kucheroz teaches a process for sterilization of liquid food by multiple passes through a turbulent chamber (Figure 13). It would have been obvious to one of ordinary skill in the art to incorporate the high number of passes taught by Kucherov, into the invention of Clark et al since both are directed to methods of processing liquid foods with dynamic high pressure, since Clark et al already taught operating a continuous loop system for a full minute (column 3, line 38) which would have produced at least a few passes, and since Kucheroz teaches that a large number of passes, such as 40 (Figure 13), resulted in sterilization of the food (ie total elimination of all microorganisms).

12. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Clark et al, in view of Kucherov, as explained above, and further in view of Emulsiflex [website and in view of page 7, line 4 of applicant's remarks dated 1/17/06].

Clark et al and Kucherov teach the above mentioned concepts. Clark et al and Kucherov do not recite an Emulsiflex C160 homogenizer. The Emulsiflex website teaches that the Emulsiflex C160 was effective reduction of E. coli in liquid foods. It would have been obvious to one of ordinary skill in the art to incorporate the Emulsiflex C160 into the invention of Clark et al, in view of Kucherov, since all are directed to methods of processing liquid foods, since Clark et al taught the use of any conventional

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homogenizer (column 2, line 52), and since the Emulsiflex C160 homogenizer was known to be effective for reducing microbial populations (website).

Response to Arguments

13. Applicant's arguments filed January 17, 2006 have been fully considered but they are not persuasive.

Applicant argues that DE 3903648A does not teach an Emulsiflex C5 or C160. However, only claim 33 requires this.

Applicant argues that DE 39036448A taught a device which is used as a homogenizer, but that it somehow cannot be a considered a homogenizer. However, this logic is clearly flawed since the operation of homogenizing a liquid food qualifies a a device as a homogenizer.

Applicant argues that DE 3903648A required 1-20 minutes per pass, However, this is clearly not the case. DE 3903648A teaches that the continuous loop, which included a homogenizer, was operated for 1-20 minutes. Thus, the fluid passes thru the homogenizer at least several times during the course of the 20 minute treatment.

Applicant argues that DE 3903648A does not recite a process that "does not denature" the food. However, DE 3903648A operates without any added heat and does not teach any sort of denaturation. Therefore, it meets the claim limitation.

Applicant argues that DE 3903648A refers to the milk industry, yet cannot be used for milk. However, this reasoning is clearly wrong since DE 3903648A teaches that

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the fluid can be "carbohydrate or protein containing solutions.... This plays a considerable role... in the milk industry" (page 4, line 4).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Drew E. Becker whose telephone number is 571-272-1396. The examiner can normally be reached on Mon.-Fri. 8am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on 571-272-1398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DREW BECKER
PRIMARY EXAMINER

3-21-06

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